

REMARKS/ARGUMENTS

Claims 6-11, 20-25, and 29-34 are pending. Claims 1-5, 12-19, 26-28, and 35-39 were cancelled due to a restriction requirement. Applicant reserves the right to file a divisional application pursuing these cancelled claims. Claims 6, 9, 20, 23, and 29 have been amended to further define the invention. Claim 29 has been amended to address the Examiner's objection. Claim 20 has been amended to address the rejections under 35 USC 101. Accordingly, Applicant requests that these rejections be withdrawn.

Claim Rejections under 35 U.S.C. 102

Claims 6 and 20 were rejected under 35 U.S.C. 102(b) as being anticipated by Yan ("Yan" hereafter) (U.S. Patent No. 5,438,374). These rejections are traversed in light of the amendments and arguments discussed below.

With regard to claim 6, the Examiner asserts that Yan discloses the feature of calculating a local gradient indicative of a region type. This feature has been further defined to specify that the calculating is within a frame of the video signal, and the region type is one of an edge region or a smooth region. Yan calculates differences between frames to determine motion between the frames (see column 6, lines 30-45). Yan is also silent as the region being a smooth region or an edge region. Moreover, as the local gradient is calculated within the frame, Yan fails to disclose the feature of determining a weight factor based upon the local gradient as the local gradient of Yan is determined between frames and not within a frame. Yan

fails to disclose the feature of applying the weight factor to a difference signal according to the region type, the difference signal representing a difference between the video signal and an output of a smoothing filter through which the video signal passes. The difference signal referenced by the Examiner is a signal that measures differences between a current frame and an adjacent frame (see column 6, lines 36-45). The difference signal as defined in claim 6, as amended, is the difference between the video signal and an output of a smoothing filter through which the video signal passes. Yan does not disclose anything remotely similar to this feature.

Claim 20 includes the features of program instructions for calculating a local gradient indicative of a region type, the region type being one of an edge region or a smooth region; program instructions for determining a weighting factor based upon the local gradient; and program instructions for applying the weighting factor to a difference signal according to the region type, the difference signal representing a difference between the video signal and an output of a smoothing filter through which the video signal passes. For at least the reasons stated above with regard to claim 6, claim 20 is not anticipated by Yan.

Claim Rejections under 35 U.S.C. 103

Claim 29 has been amended to include the features of circuitry for calculating a gradient between a pixel value and a neighboring pixel value within a same frame of the signal; and circuitry for applying the weight

factor to a difference signal according to a region type associated with the local gradient, wherein the difference signal represents a difference between the video signal and an output of a smoothing filter through which the video signal passes, and wherein the region type is one of an edge region or a smooth region. As discussed above, Yan fails to teach these features and cannot be modified to calculate a gradient within a frame as the whole point of Yan is to weight signals between frames (see Abstract). Furthermore, the difference signal is specified as the difference between the video signal and output of a smoothing filter through which the video signal passes. Neither Yan nor Hayashi disclose this feature. Applicants would like to point out that the smoothing filter of Hayashi, as illustrated in Figure 2, requires the input of a target pixel value and surrounding pixel value for the difference circuit. Accordingly, claim 29 and dependent claims 30-34, are patentable over the cited combination for at least these reasons. In addition, claims 7-11 and 21-25, which depend from claims 6 and 20, respectively, are allowable over the cited combination for at least the above stated reasons.

The Applicant respectfully submits that all of the pending claims are in condition for allowance. Therefore, a Notice of Allowance is requested. If the Examiner has any questions concerning the present Response, the Examiner is kindly requested to contact the Applicant's attorney, Michael L. Gencarella (44,703) at (408) 774-6921.

Respectfully submitted,

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